

SUBJECT INDEX

Canadian Journal of Plant Science, Volume 65, 1985

- Absinth
 biology of *Artemisia Absinthium*, 389
- Acremonium coenophialum*
 seed transmission of pyrrolizidines in tall fescue, 317
- Adaptation
 cold-tolerant sorghum, 251
- Aegilops*
 cold hardiness in wheat, 71
- Agronomic indices
 response of tobacco to ethephon, fertilizer, seedling age, 731
- Air pollution
 soybean response to O₃ and SO₂, 267
- Alar-85®
 modification of apple cold hardiness, 969
- Alfalfa
 alfalfa stand persistence, 935
 atrazine residue effects on rotation crops, 363
 breeding alfalfa for multi-pest resistance, **1108**
 crown and root rot in alfalfa, 95
 defensive alfalfa glandular trichomes, 589
 effect of forage legume plow-down on grain, **1114**
 fertilizer or manure for forage, **239**
 harvest date and alfalfa yield, **1115**
 harvesting alfalfa in establishment year, 323
 legume establishment with herbicides, 107
 nitrogen transfer from alfalfa to grass, 1109
 no-till alfalfa establishment, 609
 selection for winter survival in legumes, **1107**
 sod-seeding legumes, **239**
 verticillium wilt level and alfalfa yield, **1112**
- Alfalfa-grass mixtures
 nitrogenase activity of mono- and mixed alfalfa, 787
- Allium cepa* L. (see Onion)
- Alternaria alternata*
 biology of *Alternaria alternata* of white bean, 913
- Alternaria solani*
 potato early blight, 179
- Ammonium
 ammonium/nitrate nutrition of beans, 201
- Ammonium ion
 factors affecting trifluralin phytotoxicity to wheat, 151
- Anther culture
 barley anther culture, 29
- Anthocyanin
 inheritance of tannin content in lentil, **242**
- Apical dominance
 photoperiod control of branching and flowering, 995
- Apium graveolens* (see Celery)
- Apple, **818**
 apple leaf calcium-effect of soil Ca/Mg, 959
 comparison of foliar Mg formulations on apple, 131
 modification of apple cold hardiness, 969
 performance of micropropagated apple rootstock KSC-3, 459
 virus effects on leaf nutrient levels of McIntosh, 625
 winter injury to Gravenstein apple and trunk scoring, 981
- Arachis hypogaea* L. (see Peanut)
- Arctagrostis*
 evaluation of grass populations, 951
- Artemisia absinthium*
 biology of *Artemisia absinthium*, 389
- Artichoke (Jerusalem)
 Challenger Jerusalem artichoke, 803
- Aspergillus*
 wheat quality changes during drying, 849
- Atrazine residue effects on rotation crops, 363
- Augmented design
 type 2 modified augmented design, 743
- Available soil moisture
 irrigation and population effects on tomato yield, 1011
- Avena fatua* L. (see Oat)
- Avena sativa* L. (see Oat)
- B-3
 pesticides and N₂ fixation, 23
- Baking quality
 comparison of Canadian and American wheat cultivars, 831
- Barley
 assessing cultivar-location data, 1065
 atrazine residue effects on rotation crops, 363
 barley anther culture, 29
 barley growth analysis and yield components, 523
 barley swathing stage, **237**

Page numbers in **bold** face refer to abstracts.

- cross selection in barley, **1113**
- Diamond barley, 215
- grain yield and tillering in barley, **1114**
- haploids and quantitative inheritance, **1108**
- harvest time and drying effects on barley, 41
- Heartland barley, 445
- heritability of saline germination, **1111**
- seed cleaning and cereal yield, **1114**
- tolerance of barley cultivars to metribuzin, 415
- xylem radius of barley, 211
- Barley cultivar tolerance to metribuzin, 415
- Barley (naked)
 - Tupper hullless barley, 453
- Barley (winter)
 - OAC Acton winter barley, 449
- Barnyard grass, **813**
- Basic vegetative phase
 - vernalization and photoperiod of spring wheat, 33
- Bean
 - boron on cabbage and bean, 238
 - heterosis and inbreeding in dry beans, 243
 - interspecific hybrids in *Phaseolus*, **1113**
- Bean (field)
 - biology of *Alternaria alternata* of white bean, 913
- Bean (navy)
 - ammonium/nitrate nutrition of beans, 201
- Bean (white)
 - ammonium/nitrate nutrition of beans, 201
 - grain legume N, fixation, 307
- Benomyl
 - seed transmission of pyrrolizidines in tall fescue, 317
- Bentgrass (silky)
 - Apera spica-venti*, 711
- Bentonites, **814**
- Blackfly, **815, 816**
- Black nightshade
 - biology of *Solanum* spp., 401
- Blends
 - equal proportion mixtures of maize, 471
- Blueberry (lowbush)
 - hexazinone in lowbush blueberry, 223
- Bluegrass (Kentucky)
 - cultivar identification of Kentucky bluegrass, 985
 - duration of bluegrass testing, 351
 - irrigated pasture grasses, 455
 - sand culture for playing fields, 137
- Border effect
 - design and model for competition study, 1073
- Boron
 - boron on cabbage and bean, **238**
- Brachophagus*
 - depensive alfalfa glandular trichomes, 589
- Brassica* crops, **812**
- Brassica campestris*, **811**
- Brassica napus* L. (see Canola/Rapeseed)
- Brassica Oleracea* (see Cabbage)
- Breeding alfalfa
 - breeding alfalfa for multi-pest resistance, **1108**
- Breeding barley
 - cross selection in barley, **1113**
- Breeding forages
 - forage breeding for the Atlantic region, **1107**
- Breeding peanut
 - inheritance of oil quality in peanut, **1115**
- Bromegrass
 - evaluation of grass populations, 951
 - seeding year and N effects on grasses, 581
- Bromegrass (meadow)
 - fescue, timothy and brome pasture, **1107**
 - irrigated pasture grasses, 455
 - production of native and introduced grasses, 239
- Bromegrass (smooth)
 - irrigated pasture grasses, 455
 - production of native and introduced grasses, 239
- Bromegrass (sweet)
 - fescue, timothy and brome pasture, **1107**
- Bti*, **815**
- Buckwheat
 - buckwheat dehuller, 771
 - buckwheat protected by corn windbreaks, 441
 - windrowing time for buckwheat, 207
- BYD resistance
 - OAC Acton winter barley, 449
- Cabbage
 - boron on cabbage and bean, **238**
 - clubroot resistant cabbage, 233
 - embryogenesis from anther cultures of cabbage, 1033
- Canada thistle
 - competition between rapeseed and Canada thistle, 145
- Canola, **811, 812, 814**
 - competition between rapeseed and Canada thistle, 145
 - delayed seeding for wild oat control in rapeseed, 1101
 - factors affecting trifluralin phytotoxicity to wheat, 151
 - harvest stage in rapeseed, 1108
 - seeding date and fertilizer effect on rapeseed, 275

- Captan
 - pesticides and N₂ fixation, 23
- Carbofuran
 - carbofuran and legume establishment, 423
- Carbohydrate reserves
 - adaptation in *Lolium perenne* L., 615
- Carthamus tinctorius* L. (see Safflower)
- Cattle, **816**
- Celery
 - a disorder of stored celery, 465
- Cellule de Todd
 - production du tabac en cellules de Todd, 751
- Chlorflurenol
 - morphactine et échanges gazeux du tournesol, 533
- Chlorogenic acid
 - citric acid and potassium in Alberta potatoes, 793
- Chlorophyll content
 - senescence and N starvation in maize, 819
- Chlorsulfuron, **812**
 - chlorsulfuron degradation in soil, **1110**
 - herbicide-resistant birdsfoot trefoil, **1111**
- Citric acid and potassium in Alberta potatoes, 793
- Climate
 - climatically suitable areas for soybeans, 511
- Climate zonation
 - autumn harvest period for alfalfa, 573
- Clopyralid
 - influence of clopyralid on rapeseed varieties, 633
- Clover (red)
 - atrazine residue effects on rotation crops, 363
 - red clover yield and persistence, **1110**
 - selection for winter survival in legumes, **1107**
 - sod-seeding legumes, **239**
- Clover (white)
 - cyanogenesis in white clover, **1109**
- Clubroot resistance
 - clubroot resistant cabbage, 233
 - embryogenesis from auther cultures of cabbage, 1033
- CO₂, **813**
 - wheat quality changes during drying, 849
- Cockspur hawthorn
 - Crataegus crus-galli* L. *sensu lato*, 641
- Cold hardiness
 - cold hardiness in wheat, 71
 - effects of snowmobile traffic on grass legume mixtures, 543
 - long low-temperature exposure of wheat, 893
 - modification of apple cold hardiness, 969
- Cold tolerance
 - growth responses of corn inbreds to cool temperatures, 79
- Color
 - duration of bluegrass testing, 351
- Color grade
 - response of tobacco to ethephon, fertilizer, seedling age, 731
- Colorado potato beetle, **817**
- Compaction
 - sand culture for playing fields, 137
- Competition, **813**
 - wild oat interference in sunflower, 219
- Competition effect
 - design and model for competition study, 1073
- Composition
 - nutrition value of grass silages, 99
- Composition chimique
 - régimes d'exploitation de la luzerne, 553
- Contact insecticides, **813**
- Control of germander with herbicides, 163
- Control of soil heterogeneity
 - type 2 modified augmented design, 743
- Controlled atmosphere
 - a disorder of stored celery, 465
- Cooking quality of field pea, 55
- Corn, **813**
 - buckwheat protected by corn windbreaks, 441
 - chlorsulfuron degradation in soil, **1110**
 - control of tillering in maize with gibberellic acid, 901
 - crop irrigation in Ontario, **237**
 - Effects of hog manure on corn yield, 63
 - equal proportion mixtures of maize, 471
 - Fusarium* micotoxin translocation in corn, 47
 - growth responses of corn inbreds to cool temperatures, 79
 - maize mixtures of different proportions, 481
 - nitrogen nutrition in maize seedlings, 87
 - no-till corn planter, **1115**
 - photosynthesis and N starvation in maize, 491
 - senescence and N starvation in maize, 819
 - stress and corn/silage grain yield, **239**
 - water extraction patterns in corn, 921
- Crataegus crus-galli* L. *sensu lato*, 641
- Critical period
 - wild oat interference in sunflower, 219
- Crop loss competition
 - competition between rapeseed and Canada thistle, 145
- Crop tolerance
 - crop tolerance and TCA residues in wheat, 1039

- Crown depth
xylem radius of barley, 211
- Crozier removal
effect of crozier removal on ostrich fern growth, 1019
- Crucifers
clubroot resistant cabbage, 233
- Cucumber
residues of EBDC and dinocap in greenhouse cucumber, 229
- Cultivar
crown and root rot in alfalfa, 95
- Cultivar assessment
assessing cultivar-location data, 1065
- Cultivar description
Acadie: clubroot-resistant cabbage, 233
Challenger Jerusalem artichoke, 803
Diamond barley, 215
Heartland barley, 445
Maple Isle soybean, 777
Maple Ridge soybean, 781
Monopol winter wheat, 1085
OAC Acton winter barley, 449
OAC Decade winter triticales, 451
Ontario Two Hundred geranium, 1089
Pegasus faba bean, 775
Prima winter rye, 447
Saffire safflower, 1079
Tupper hullless barley, 453
Victoria field pea, 785
Vuka winter wheat, 1083
- Cultivar identification of Kentucky bluegrass, 985
- Cutting
forage harvest in triticales, 879
harvesting alfalfa in establishment year, 323
- Cutting management
autumn harvest period for alfalfa, 573
productivity and quality of perennial ryegrass, 565
- Cyanogenesis in white clover, **1109**
- Dalapon
Fusarium wilt and herbicide effects on trefoil, 329
- Darkening (after cooking)
citric acid and potassium in Alberta potatoes, 793
- Day length
vernalization and photoperiod of spring wheat, 33
- Dehuller
Buckwheat dehuller, 771
- Densité apparente et rendement
préparation du sol et culture en milieu contrôlé, 761
- Density
duration of bluegrass testing, 351
- Deoxynivalenol
Fusarium micotoxin translocation in corn, 47
- Désagrégation du sol
préparation du sol et culture en milieu contrôlé, 761
- Deschampsia*
evaluation of grass populations, 951
- Desiccation of sunflower, 841
- Développement
température et photosynthèse de la tomate, 185
- Diclofop
legume establishment with herbicides, 107
- Digestibility
nutrition value of grass silages, 99
productivity and quality of grasses, 117
- Dinocap
residues of EBDC and dinocap in greenhouse cucumber, 229
- Diquat
desiccation of sunflower, 841
- Disease control, **816**
potato early blight, 179
- Disease resistance, **816**
breeding alfalfa for multi-pest resistance, **1108**
disease resistance vs. tolerance in soybean, **1113**
- Distribution
Crataegus crus-galli L. *sensu lato*, 641
Oxalis (sect. *Corniculata*) taxa, 691
Potamogeton crispus L., 655
Setaria viridis (L.) Beauv., 669
- DL-PLUS
Pesticides and N₂ fixation, 23
- Dormancy
cambial electrical resistance and growth, 345
- Double haploid
cross selection in barley, **1113**
haploids and quantitative inheritance, **1108**
- Dowco 290
influence of clopyralid on rapeseed varieties, 633
- Drought
tall wheatgrass and basin wildrye response to salinity, 335
- Dry matter partitioning
water extraction patterns in corn, 921
- Drying rate, **814**

- Eastern black nightshade
 biology of *Solanum* spp., 401
- Economic return
 nonoilseed sunflower plant density and row spacing, 501
 response of tobacco to ethephon, fertilizer, seedling age, 731
- Economic worth of forage
 effect of fertilizer on forage in E.C. Saskatchewan, 597
- ED₅₀
 response of onion seedlings to oxyfluorfen, 357
- Electrical resistance
 cambial electrical resistance and growth, 345
- Electrophoresis
 cultivar identification of Kentucky bluegrass, 985
- ELISA
 GFLV detection by ELISA of grape shoot tip cultures, 977
- Embryo
 embryogenesis from anther cultures of cabbage, 1033
- Energy
 tupper hulless barley, 453
- Environmental adaptation in *Lolium perenne* L., 615
- Environmental factors
 tolerance of barley cultivars to metribuzin, 415
- Enzymes (N assimilating)
 nitrogen nutrition in maize seedlings, 87
- Epichloe typhina* (Fr.) Tul.
 seed transmission of pyrrolizidines in tall fescue, 317
- Epicuticular wax
 Response of onion seedlings to oxyfluorfen, 357
- Ergosterol
 Fusarium micotoxin translocation in corn, 47
- Erosion control
 no-till alfalfa establishment, 609
- Establishment
 carbofuran and legume establishment, 423
- Establishment year
 seeding year and N effects on grasses, 581
- Ethylene
 a disorder of stored celery, 465
- Euphorbia pulcherrima*
 influence de la température sur le poinsettia, 1001
- Experimental designs
 experimental design for field experiments, 1111
- F₁ hybrid
 triazine-resistant hybrid rapeseed, 889
- Faba bean
 annual legume green manure crops, 241
 herbicide effects on faba bean, 9
 nitrogen effect on N₂ fixation, 238
 Pegasus faba bean, 775
- Fagopyrum esculentum* Moench. (see Buckwheat)
- Fat acidity
 wheat quality changes during drying, 849
- Feed barley
 Diamond barley, 215
- Fenitrothion, 817
- Fern (ostrich)
 effect of crozier removal on ostrich fern growth, 1019
 in vitro propagation of the ostrich fern, 1025
- Fertilizer (inorganic)
 effect of fertilizer on forage in E. C. Saskatchewan, 597
- Fescue (tall)
 fescue, timothy and brome pasture, 1107
- Fiber
 legume establishment with herbicides, 107
- Field pea
 cooking quality of field pea, 55
- Flowering
 photoperiod control of branching and flowering, 995
- Fluazifop-butyl
 effects of herbicides on quackgrass rhizomes, 1057
- Fluid drilling
 seed and soil moisture effects on lettuce, 193
- Foliar spary
 comparison of foliar Mg formulations on apple, 131
- Forage
 pinegrass tiller pull-up, 943
- Forage breeding
 forage breeding for the Atlantic region, 1107
- Forage crops
 effects of snowmobile traffic on grass-legume mixtures, 543
- Forage harvest
 forage harvest in triticale, 879
- Forage protein
 effect of fertilizer on forage in E. C. Saskatchewan, 597
- Forage yield
 effect of fertilizer on forage in E. C. Saskatchewan, 597
 seeding year and N effects on grasses, 581

- Fragaria* × *ananassa* Duch. (see Strawberry)
- Frost damage, **814**
- Fructose
- Challenger Jerusalem artichoke, 803
- Fruit speck
- irrigation and population effects on tomato yield, 1011
- Fumigant movement, **815**
- Fumigation of soil, **816**
- Fungicide, **816, 817**
- Fusarium* spp., **816**
- Fusarium graminearum*
- Fusarium* micotoxin translocation in corn, 47
- Fusarium oxysporum*
- Fusarium* wilt and herbicide effects on trefoil, 329
- Gas diffusion, **813**
- Gene expression
- cold hardiness in hexaploid triticale, 487
- Genotype-environment interaction
- assessing cultivar-location data, 1065
- Geranium
- Ontario Two Hundred geranium, 1089
- Germination
- germination of raspberry seeds, 125
- seed size and density effects on soybean, 1
- Germplasm, **816**
- GFLV
- GFLV detection by ELISA of grape shoot tip cultures, 977
- Glucosinolates
- embryogenesis from anther cultures of cabbage, 1033
- Glycine max (L.) Merr. (See Soybean)
- Glyphosate
- effects of herbicides on quackgrass rhizomes, 1057
- Grain drying, **814**
- Grain storage, **813**
- Grain weight
- grain yield and tillering in barley, **1114**
- Grain yield
- barley growth analysis and yield components, 523
- comparison of Canadian and American wheat cultivars, 831
- equal proportion mixtures of maize, 471
- maize mixtures of different proportions, 481
- Grapevine
- GFLV detection by ELISA of grape shoot tip cultures, 977
- Grass
- fertilizer or manure for forage, **239**
- production of native and introduced grasses, **239**
- productivity and quality of grasses, 117
- Gravenstein apple
- winter injury to Gravenstein apple and trunk scoring, 981
- Grazing
- grazing damage to pinegrass, **241**
- grazing recovery of pinegrass, **241**
- pinegrass tiller pull-up, 943
- Green foxtail, 669
- Green manure
- annual legume green manure crops, **241**
- Greenhouse
- residues of EBDC and dinocap in greenhouse cucumber, 229
- Growth
- alfalfa stand persistence, 935
- cambial electrical resistance and growth, 345
- herbicide effects on faba bean, 9
- winter injury to Gravenstein apple and trunk scoring, 981
- Growth regulator
- spindliness of tomato transplants, 797
- Hairy nightshade
- biology of *Solanum* spp., 401
- Haloxypop-methyl
- effects of herbicides on quackgrass rhizomes, 1057
- Haploid
- cross selection in barley, **1113**
- embryogenesis from anther cultures of cabbage, 1033
- haploids and quantitative inheritance, **1108**
- Harvest date
- alfalfa yield, **115**
- effect of seeding date on sunflower, 299
- Harvest method, **814**
- Harvesting regime
- effect of crozier removal on ostrich fern growth, 1019
- Hay
- evaluation of grass populations, 951
- Healing
- winter injury to Gravenstein apple and trunk scoring, 981
- Helianthus annuus* L. (see Sunflower / voyez Tournesol)
- Helianthus tuberosus* (see Artichoke (Jerusalem))
- Herbage removal
- pinegrass tiller pull-up, 943

- Herbicide**
 control of germander with herbicides, 163
 sod seeding legumes on pastures, 1049
 wild oat interference in sunflower, 219
 Herbicide persistence, **811**
 Herbicide residue
 chlorsulfuron degradation in soil, **1110**
 Herbicide tolerance
 herbicide-resistant birdsfoot trefoil, **1111**
 hexazinone in lowbush blueberry, 223
 Heterosis and inbreeding in dry beans, 243
 Hexazinone in lowbush blueberry, 223
 High-performance liquid chromatography
 analysis of protein in wheat by RP-HPLC, 285
 Histsols
 P uptake and pyrophosphate hydrolysis, 1091
 Hog manure
 effects of hog manure on corn yield, 63
Hordeum vulgare L. (see Barley)
 Hull percent
 lemma color and oat quality, **240**
 Hybrid mixtures
 equal proportion mixtures of maize, 471
 Hydraulic conductivity
 sand culture for playing fields, 137
- Impatiens**
 photoperiod control of branching and flowering, 995
 Inbreeding depression
 heterosis and inbreeding in dry beans, 243
 Indices
 duration of bluegrass testing, 351
 Insect pests, **813**
 Intake
 nutrition value of grass silages, 99
 Integrated cereal management in Nova Scotia, **1112**
 Interference
 wild oat interference in sunflower, 219
 International testing
 cold-tolerant sorghum, 251
 Interspecific hybrids
 cold hardiness in wheat, 71
 in *Phaseolus*, **1113**
 Ion toxicity
 tall wheatgrass and basin wildrye response to salinity, 335
 Irrigation
 crop irrigation in Ontario, **237**
 Isozyme
 cultivar identification of Kentucky bluegrass, 985
- Kernel development**
 sucrose during kernel development, 867
 Kernel moisture content
 harvest time and drying effects on barley, 41
- Larvicide, 815**
Latuca sativa L. (see Lettuce)
 Leaf area
 senescence and N starvation in maize, 819
 Leaf calcium
 apple leaf calcium-effect of soil Ca/Mg, 959
 Leaf magnesium
 apple leaf calcium-effect on soil Ca/Mg, 959
 Leaf nutrient levels
 virus effects on leaf nutrient levels of McIntosh, 625
 Legume
 carbofuran and legume establishment, 423
 effect of forage legume plow-down on grain, **1114**
 sod seeding legumes on pastures, 1049
 Lemma color
 lemma color and oat quality, **240**
 Lentil
 annual legume green manure crops, **241**
 chlorsulfuron degradation in soil, **1110**
 inheritance of tannin content in lentil, **242**
 Lettuce
 seed and soil moisture effects on lettuce, 193
 Linoleic acid
 effect of seeding date on sunflower, 299
 Lipid
 effect of trifluralin on wheat and triticale roots, 723
 Lodging
 forage harvest in triticale, 879
 Lontrel 360
 influence of clopyralid on rapeseed varieties, 633
 Loose silky bentgrass
Apera spica-venti, 711
Lotus corniculatus L. (see Trefoil (birdsfoot))
 Luzerne
 regimes d'exploitation de la luzerne, 553
Lycopersicon esculentum mill. (see Tomato / voyez Tomate)
- Magnesium deficiency**
 comparison of foliar Mg formulations on apple, 131
Malus domestica L. (see Apple)
 Mancozeb
 residues of EBDC and dinocap in greenhouse cucumber, 229

- Manihot neusana* Nassar, 1097
Manihot pohlii Nassar, 1097
 Manure (farmyard)
 effect of fertilizer on forage in E. C. Saskatchewan, 597
 fertilizer or manure for forage, **239**
 (green) annual legume green manure crops, 241
Matteuccia struthiopteris L. (see Fern (ostrich))
 Maturation conditions
 cooking quality of field pea, 55
 Maturity, **814**
 windrowing time for buckwheat, 207
 MCPB
 legume establishment with herbicides, 107
Medicago sativa L. (see Alfalfa / voyez Luzerne)
 Mediterranean
 adaptation in *Lolium perenne* L., 615
 Metalaxyl
 pesticides and N_2 fixation, 23
 Meteorology
 advances in meteriology, **237**
 Metribuzin
 herbicide effects on faba bean, 9
 tolerance of barley cultivars to metribuzin, 415
 Mg chelate
 comparison of foliar Mg formulations on apple, 131
 Mg sulphate
 comparison of foliar Mg formulations on apple, 131
 Microloggers for weather, **238**
 Micropropagation
 performance of micropropagated apple rootstock KSC-3, 459
 Milieu de culture
 production du tabac en cellules de Todd, 751
 Milling quality
 comparison of Canadian and American wheat cultivars, 831
 Mixtures
 maize mixtures of different proportions, 481
 Modelling, **818**
 Moisture
 wheat quality changes during drying, 849
 Mold, **813**
Moloidogyne hapla
 survival in organic soil, 435
 Morphactine et échanges gazeux du tournesol, 533
 Morphogenesis
 in vitro propagation of the ostrich fern, 1025
 Mosquito, **815**
 abatement, **815**
 Mycotoxin
 Fusarium micotoxin translocation in corn, 47
 N_2 fixation
 soybean response to N_2 fixation, 238
 $N_2(C_2H_2)$ fixation
 grain legume N_2 fixation, 307
 Napropamide, 812
 Nearest neighbor analysis of yield trials, **1107**
 Nematode
 carbofuran and legume establishment, 423
 survival of *Meloidogyne hapla* in organic soil, 435
 Net photosynthesis
 soybean response to O_3 and SO_2 , 267
Nicotiana tabacum L. (voyez Tabac)
 Nitrate
 ammonium/nitrate nutrition of beans, 201
 Nitrogen
 fertilizer or manure for forage, **239**
 nitrogen effect on N_2 fixation, **238**
 seeding year and N effects on grasses, 581
 Nitrogen content
 photosynthesis and N-starvation in maize, 491
 productivity and quality of grasses, 117
 Nitrogen deficiency
 photosynthesis and N-starvation in maize, 491
 Nitrogen fertility
 productivity and quality of perennial ryegrass, 565
 Nitrogen fixation
 carbofuran and legume establishment, 423
 high N-fixing soybean, **1110**
 nitrogenase activity on mono- and mixed alfalfa, 787
 Nitrogen nutrition
 nitrogen nutrition in maize seedlings, 87
 Nitrogen release
 effect of forage legume plow-down on grain, **1114**
 Nitrogen stress
 photosynthesis and N-starvation in maize, 491
 Nitrogen transfer
 nitrogen transfer from alfalfa to grass, 1109
 Nitrogen transferase
 nitrogenase activity of mono- and mixed alfalfa, 787
 No-till
 alfalfa establishment, 609
 no-till corn planter, **1115**

- Nodule activity
 nitrogenase activity of mono- and mixed alfalfa, 787
- Nodule development
 grain legume N₂ fixation, 307
- Nonoilseed sunflower
 nonoilseed sunflower plant density and row spacing, 501
- Nonrandom design
 design and model for competition study, 1073
- Nonreplicated experiment
 type 2 modified augmented design, 743
- Nutrient uptake
 effects of hog manure on corn yield, 63
- Nutritive value
 productivity and quality of grasses, 117
 productivity and quality of perennial ryegrass, 565
- Oat
 lemma color and oat quality, 240
- Oat (wild), 816
 germplasm, 816
 delayed seeding for wild oat control in rapeseed, 1101
- Oil content, 812
 effect of seeding date on sunflower, 299
 wild oat interference in sunflower, 219
- Oilseed rape
 triazine-resistant hybrid rapeseed, 889
- Onion
 P uptake and pyrophosphate hydrolysis, 1091
 response of onion seedlings to oxyfluorfen, 357
- Orchardgrass
 irrigated pasture grasses, 455
- Organic soil
 survival of *Meloidogyne hapla* in organic soil, 435
- Osmotic adjustment
 tall wheatgrass and basin wildrye response to salinity, 335
- Ottawa rootstocks
 virus effects on leaf nutrient levels of McIntosh, 625
- Oxalis* spp.
 Oxalis (sect. *Corniculata*) taxa, 691
- Oxyfluorfen
 response of onion seedlings to oxyfluorfen, 357
- Paraquat
 sod-seeding legumes, 239
- Pasture
 evaluation of grass populations, 951
 fescue, timothy and brome pasture, 1107
 sod seeding legumes on pastures, 1049
- Pea
 annual legume green manure crops, 241
 nitrogen effect on N₂ fixation, 238
 Victoria field pea, 785
- Peach
 cambial electrical resistance and growth, 345
- Peanut
 inheritance of oil quality in peanut, 1115
- Pedigreed seed
 seed cleaning and cereal yield, 1114
- Pelargonium* × *Hortorum* barley (see *Gera-nium*)
- Persistence
 adaptation in *Lolium perenne* L., 615
 regimes d'exploitation de la luzerne, 553
- Pest control, 818
- Pest resistance (immunity)
 defensive alfalfa glandular trichomes, 589
- Phaseolus actifolius*
 interspecific hybrids in *Phaseolus*, 1113
- Phaseolus vulgaris* (see Bean)
- Phosphorus
 fertilizer or manure for forage, 239
- Photoperiod
 photoperiod control of branching and flowering, 995
- Photosynthèse
 morphactine et échanges gazeux du tournesol, 533
- Photosynthetic rate
 senescence and N starvation in maize, 819
- Physiology
 growth responses of corn inbreds to cool temperatures, 79
- Phytophthora root rot
 disease resistance vs. tolerance in soybean, 1113
- Phytotoxicity
 ammonium/nitrate nutrition of beans, 201
- Pinegrass
 grazing damage to pinegrass, 241
 grazing recovery of pinegrass, 241
 pinegrass tiller pull-up, 943
- Pisum sativum* L. (see Pea)
- Plant density
 maize mixtures of different proportions, 481
 nonoilseed sunflower plant density and row spacing, 501
- Plant growth regulators
 control of tillering in maize with gibberellic acid, 901
- Plant height
 spindliness of tomato transplants, 797

- Pollutant mixtures
soybean response to O₃ and SO₂, 267
- Polyphosphates
P uptake and pyrophosphate hydrolysis, 1091
- Population stress
equal proportion mixtures of maize, 471
- Potamogeton crispus* L., 655
- Potassium content
citric acid and potassium in Alberta potatoes, 793
- Potato, **812**
citric acid and potassium in Alberta potatoes, 793
potato blight, **817**
potato early blight, 179
- Préparation du sol
preparation du sol et culture en milieu contrôlé, 761
- Pré-traitement au froid
influence de la température sur le poinsettia, 1001
- Programme de fertilisation
production du tabac en cullules de Todd, 751
- Propagation (in vitro)
in vitro propagation of the ostrich fern, 1025
- Protein
analysis of protein in wheat by RP-HPLC, 285
legume establishment with herbicides, 107
- Protein content
barley growth analysis and yield components, 523
- Pseudomonas syringae* pv. *tomato*
irrigation and population effects on tomato yield, 1011
- Pyrophosphatase activity
P uptake and pyrophosphate hydrolysis, 1091
- Quality
harvest time and drying effects on barley, 41
productivity and quality of grasses, 117
seeding date and fertilizer effect on rapeseed, 275
- Quality of coat
lemma color and oat quality, **240**
- Quantitative inheritance
haploids and quantitative inheritance, **1108**
- Rapeseed, **812, 1108**
chlorsulfuron degradation in soil, **1110**
competition between rapeseed and Canada thistle, 145
delayed seeding for wild oat control in rapeseed, 1101
factors affecting trifluralin phytotoxicity to wheat, 151
harvest stage in rapeseed, **1108**
influence of clopyralid on rapeseed varieties, 633
seeding date and fertilizer effect on rapeseed, 275
triazine-resistant hybrid rapeseed, 889
- Raspberry
germination of raspberry seeds, 125
- Régimes d'exploitation
régimes d'exploitation de la luzerne, 553
- Rendement
régimes d'exploitation de la luzerne, 553
- Reserves nutritives
régimes d'exploitation de la luzerne, 553
- Residue
atrazine residue effects on rotation crops, 363
crop tolerance and TCA residues in wheat, 1039
residues of EBDC and dinocap in greenhouse cucumber, 229
- Residue levels
hexazinone in lowbush blueberry, 223
- Resistance, **811**
- Respiration
morphactine et échanges gazeux du tournesol, 533
photosynthesis and N-starvation in maize, 491
- Rhizobium leguminosarum*
nitrogen effect on N₂ fixation, **238**
- Riboside
barley anther culture, 29
- Root distribution
clay tile microplots, 807
- Root growth
clay tile microplots, 807
sand culture for playing fields, 137
- Root morphology
effect of trifluralin on wheat and triticale roots, 723
- Root reserves
red clover yield and persistence, **1110**
- Root rot
crown and root rot in alfalfa, 95
- Rootstock
performance of micropropagated apple rootstock KSC-3, 459
- Rosaceae
germination of raspberry seeds, 125
- Row spacing
nonoilseed sunflower plant density and row spacing, 501
- Rubus idaeus* L. (see Raspberry)
- Russet burbank
citric acid and potassium in Alberta potatoes, 793

- Russian thistle
biology of *Salsola pestifer* A. Nels., 379
- Rye
cold hardiness in hexaploid triticale, 487
no-till alfalfa establishment, 609
sucrose during kernel development, 867
- Rye (winter)
atrazine residue effects on rotation crops, 363
forage harvest in triticale, 879
Prima winter rye, 447
- Ryegrass (annual)
nutrition value of grass silages, 99
- Ryegrass (Italian)
dry matter losses in annual ryegrass, **1112**
- Ryegrass (perennial)
adaptation of *Lolium perenne* L., 615
productivity and quality of perennial ryegrass, 565
- Ryegrass (Russian wild)
seeding year and N effects on grasses, 581
- Ryegrass (westerwolds)
dry matter losses in annual ryegrass, **1112**
- Ryegrass staggers
seed transmission of pyrrolizidines in tall fescue, 317
- Safflower
head rot in safflower, 259
Saffire safflower, 1079
- Sainfoin
legume establishment with herbicides, 107
- Saline germination
heritability of saline germination, 1111
- Salsola pestifer*
biology of *Salsola pestifer* A. Nels., 379
- Salt tolerance
tall wheatgrass and basin wildrye response to salinity, 335
- Scald resistance
OAC Acton winter barley, 449
- Scarifier
buckwheat dehuller, 771
- Sclerotinia sclerotiorum*
head rot in safflower, 259
- Secale cereale* L. (see Rye)
- Seed
germination of raspberry seeds, 125
- Seed chalcid
defensive alfalfa glandular trichomes, 589
- Seed density
seed size and density effects on soybean, 1
- Seed size
nonoilseed sunflower plant density and row spacing, 501
seed size and density effects on soybean, 1
- Seed yield
grain legume N₂ fixation, 307
wild oat interference in sunflower, 219
- Seeding date
effect of seeding date on sunflower, 299
seeding date and fertilizer effect on rapeseed, 275
- Seeding (delayed)
delayed seeding for wild oat control in rapeseed, 1101
- Seedling development
nitrogen nutrition in maize seedlings, 87
- Self-treatment, **816**
- Serre
production du tabac en cellules de Todd, 751
- Setaria viridis* 669, **812**
- Sethoxydim
Effects of herbicides on quackgrass rhizomes, 1057
- Silage
nutrition value of grass silages, 99
stress and corn/silage grain yield, 239
- Silage corn
effects of hog manure on corn yield, 63
- Snow compaction
effects of snowmobile traffic on grass legume mixtures, 543
- Snowmobile
effects of snowmobile traffic on grass legume mixtures, 543
- Sod seeding, **239**
sod seeding legumes on pastures, 1049
sod seeding legumes, **239**
- Sodium hypochlorite
a disorder of stored celery, 465
- Soil
triazine persistence in, **811**
- Soil calcium
apple leaf calcium—effect of soil Ca/Mg, 959
- Soil incorporation
barley tolerance to trifluralin, 169
- Soil magnesium
apple leaf calcium—effect of soil Ca/Mg, 959
- Soil moisture
irrigation and population effects on tomato yield, 1011
- Solanum* spp.
biology of *Solanum* spp., 401
- Solanum tuberosum* (see Potato)
- Sorghum
cold-tolerant sorghum, 251
- Soybean
climatically suitable areas for soybeans, 511
disease resistance vs. tolerance in soybean, **1113**

- grain legume N₂ fixation, 307
 high N-fixing soybean, **1110**
 Maple Isle soybean, 777
 Maple Ridge soybean, 781
 seed size and density effects on soybean, 1
Sphacelia typhina (Pers.) Sacc.
 seed transmission of pyrrolizidines in tall fescue, 317
 Spray (foliar)
 comparison of foliar Mg formulations on apple, 131
 Spray retention
 response of onion seedlings to oxyfluorfen, 357
 Sprouting resistance in cereals, **240**
 Spruce budworm, **817**
 Statistical methods
 experimental design for field experiments, **1111**
 nearest neighbor analysis of field trials, **1107**
 Stem borer
 Manihot neusana Nassar, 1097
 Stem diameter
 spindliness of tomato transplants, 797
 Storage, **814**
 Stored-product insect, **813**
 Stored wheat, **813**
 Strawberry, **816**
 Stress
 adaptation in *Lolium perenne* L., 615
 stress and corn/silage grain yield, **239**
 Stress (water)
 water extraction patterns in corn, 921
 Structural treatments, **813**
 Substrat
 température et photosynthèse de la tomate, 185
 Suckers
 control of tillering in maize with gibberellic acid, 901
 Sucrose, sucrose synthase
 sucrose during kernel development, 867
 Sunflower
 desiccation of sunflower, 841
 effect of seeding date on sunflower, 299
 Surfactant WK®
 modification of apple cold hardiness, 969
 Survival of *Meloidogyne hapla* in organic soil, 435
 Swathing
 barley swathing stage, **237**
 Symbiotic nitrogen fixation
 herbicide effects on faba bean, 9
 Tabac à cigarette
 production du tabac en cellules de Todd, 751
 Tangier flatpea
 annual legume green manure crops, **241**
 Tannin
 inheritance of tannin content in lentil, **242**
 TCA
 crop tolerance and TCA residues in wheat, 1039
 Temperature
 ammonium/nitrate nutrition of beans, 201
 factors affecting trifluralin phytotoxicity to wheat, 151
 low temperature, **813**
 Manihot neusana Nassar, 1097
 Température nocturne
 influence de la température sur le poinsettia, 1001
 Température photosynthèse
 température et photosynthèse de la tomate, 185
 Tetrazolium chloride
 effects of herbicides on quackgrass rhizomes, 1057
Teucrium canadense L. var. *canadense*
 control of germander with herbicides, 163
 Thiram
 pesticides and N₂ fixation, 23
 THIS Mg
 comparison of foliar Mg formulations on apple, 131
 Tillering
 grain yield and tillering in barley, **1114**
 Timothy
 atrazine residue effects on rotation crops, 363
 fescue, timothy and brome pasture, **1107**
 irrigated pasture grasses, 455
 nitrogen transfer from alfalfa to grass, 1109
 nutrition value of grass silages, 99
 timothy seed yield management, 1109
 Tissue culture
 embryogenesis from anther cultures of cabbage, 1033
 GFLV detection by ELISA of grape shoot tip cultures, 977
 in vitro propagation of the ostrich fern, 1025
 Tolerance
 barley tolerance to trifluralin, 169
 influence of clopyralid on rapeseed varieties, 633
 Manihot neusana Nassar, 1097
 Tomato
 température et photosynthèse de la tomate, 185

- Tomato
irrigation and population effects on tomato yield, 1011
spindliness of tomato transplants, 797
- Tournesol
morphactine et échanges gazeux du tournesol, 533
- Translocation
effects of herbicides on quackgrass rhizomes, 1057
Fusarium micotoxin translocation in corn, 47
- Transpiration
Morphactine et échanges gazeux du tournesol, 533
water extraction patterns in corn, 921
- Trefoil (birdsfoot)
Fusarium silt and herbicide effects on trefoil, 329
herbicide-resistant birdsfoot trefoil, 1111
- Triazine, 811
triazine-resistant hybrid rapeseed, 889
- Triazine tolerance, 812
- Trichomes (glandular)
defensive alfalfa glandular trichomes, 589
- Trifluralin, 812
barley tolerance to trifluralin, 169
delayed seeding for wild oat control in rapeseed, 1101
effect of trifluralin on wheat and triticale roots, 723
factors affecting trifluralin phytotoxicity to wheat, 151
herbicide effects on faba bean, 9
- Trifolium pratense* L. (see Clover (red))
- Trifolium repens* L. (see Clover (white))
- Triticale
cold hardness in hexaploid triticale, 487
effect of trifluralin on wheat and triticale roots, 723
forage harvest in triticale, 879
OAC Decade winter triticale, 451
sucrose during kernel development, 867
- Triticum aestivum* L. (see Wheat)
- Trunk scoring
winter injury to Gravenstein apple and trunk scoring, 981
- Turgor
tall wheatgrass and basin wildrye response to salinity, 335
- 2,4-D
barley anther culture, 29
crop tolerance and TCA residues in wheat, 1039
herbicide-resistant birdsfoot trefoil, 1111
- 2,4-DB
fusarium wilt and herbicide effects on trefoil, 329
legume establishment with herbicides, 107
- Tychius
defensive alfalfa glandular trichomes, 589
- Ureides
high N-fixing soybean, 1110
- Vaccinium angustifolium* Ait. (see Blueberry)
- Vein-banding strain
GFLV detection by ELISA of grape shoot tip cultures, 977
- Ventilation
wheat quality changes during drying, 849
- Verticillium* wilt
level and alfalfa yield, 1112
- Vicia faba* (see Faba bean)
- Vigor
seed size and density effects on soybean, 1
- Virus effects on leaf nutrient levels of McIntosh, 625
- Vitis rupestris* (see Grapevine)
- Water table (perched)
sand culture for playing fields, 137
- Water use modelling
water extraction patterns in corn, 921
- Wax (epicuticular)
response of onion seedlings to oxyfluorfen, 357
- Weather, 815
- Weather prediction
advances in meteorology, 237
- Weather-timed spray
potato early blight, 179
- Weed biology
Apera spica-venti, 711
Artemisia absinthium L., 389
Crataegus crus-galli L. *sensu lato*, 641
Oxalis (sect. *Corniculata*) taxa, 691
Potamogeton crispus L., 655
Salsola pestifer A. Nels., 379
Setaria viridis (L.) Beauv., 669
Solanum spp., 401
- Weediness
duration of bluegrass testing, 351
- Western equine encephalitis, 815
- Wheat, 814
analysis of protein in wheat by RP-HPLC, 285
crop tolerance and TCA residues in wheat, 1039

- effect of trifluralin on wheat and triticale roots, 723
- factors affecting trifluralin phytotoxicity to wheat, 151
- long low-temperature exposure of wheat, 893
- seed cleaning and cereal yield, **1114**
- sprouting resistance in cereals, **240**
- sucrose during kernel development, 867
- Wheat (hard red spring)
 - vernalization and photoperiod of spring wheat, 33
- Wheat quality
 - comparison of Canadian and American wheat cultivars, 831
- Wheat (winter) **816**
 - cold hardiness in hexaploid triticale, 487
 - cold hardiness in wheat, 71
 - forage harvest in triticale, 879
 - integrated cereal management in Nova Scotia, **1112**
 - Monopol winter wheat, 1085
 - Vuka winter wheat, 1083
- Wheatgrass
 - evaluation of grass populations, 951
- Wheatgrass (intermediate, northern, slender, western)
 - production of native and introduced grasses, **239**
- Wild oat germplasm, **816**
- Windbreaks
 - buckwheat protected by corn windbreaks, 441
- Windgrass
 - Apera spica-venti*, 711
- Windrowing
 - barley swathing stage, **237**
- Windrowing time
 - windrowing time for buckwheat, 207
- Winter injury
 - alfalfa stand persistence, 935
 - winter injury to Gravenstein apple and trunk scoring, 981
- Winter survival
 - autumn harvest period for alfalfa, 573
 - long low-temperature exposure of wheat, 893
 - selection for winter survival in legumes, **1107**
- Winterkill
 - harvesting alfalfa in establishment year, 323
- Wood-sorrels
 - Oxalis* (sect. *Corniculata*) taxa, 691
- X triticosecale (see Triticale)
- Xylem radius
 - xylem radius of barley, 211
- Yield
 - effects of hog manure on corn yield, 63
 - harvest time and drying effects on barley, 41
 - productivity and quality of perennial rye-grass, 565
 - response of tobacco to ethephon, fertilizer, seedling age, 731
- Zea mays* L. (see Corn)
- Zeatin
 - barley anther culture, 29

